002007 9h982960

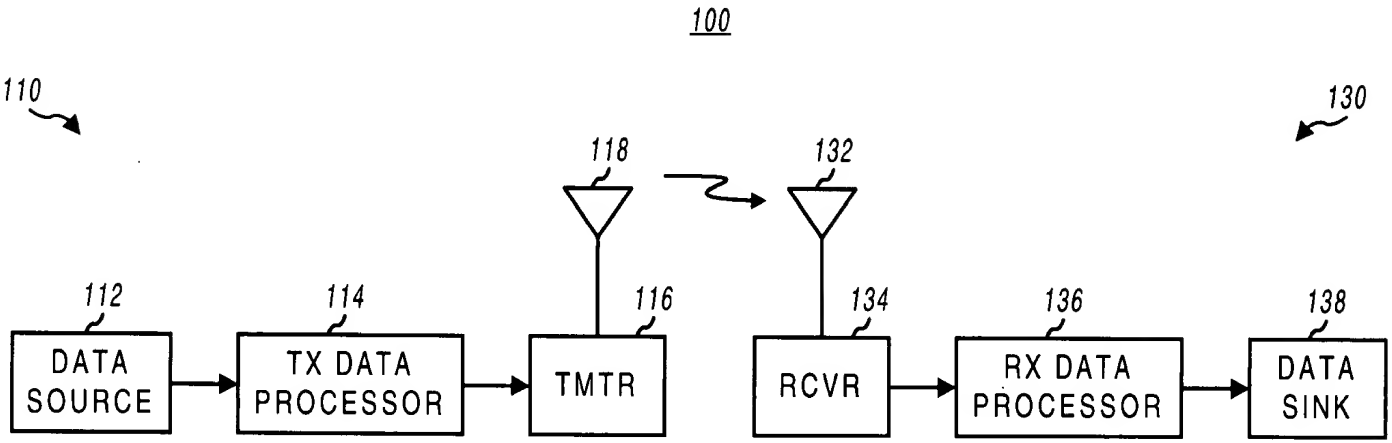


FIG. 1

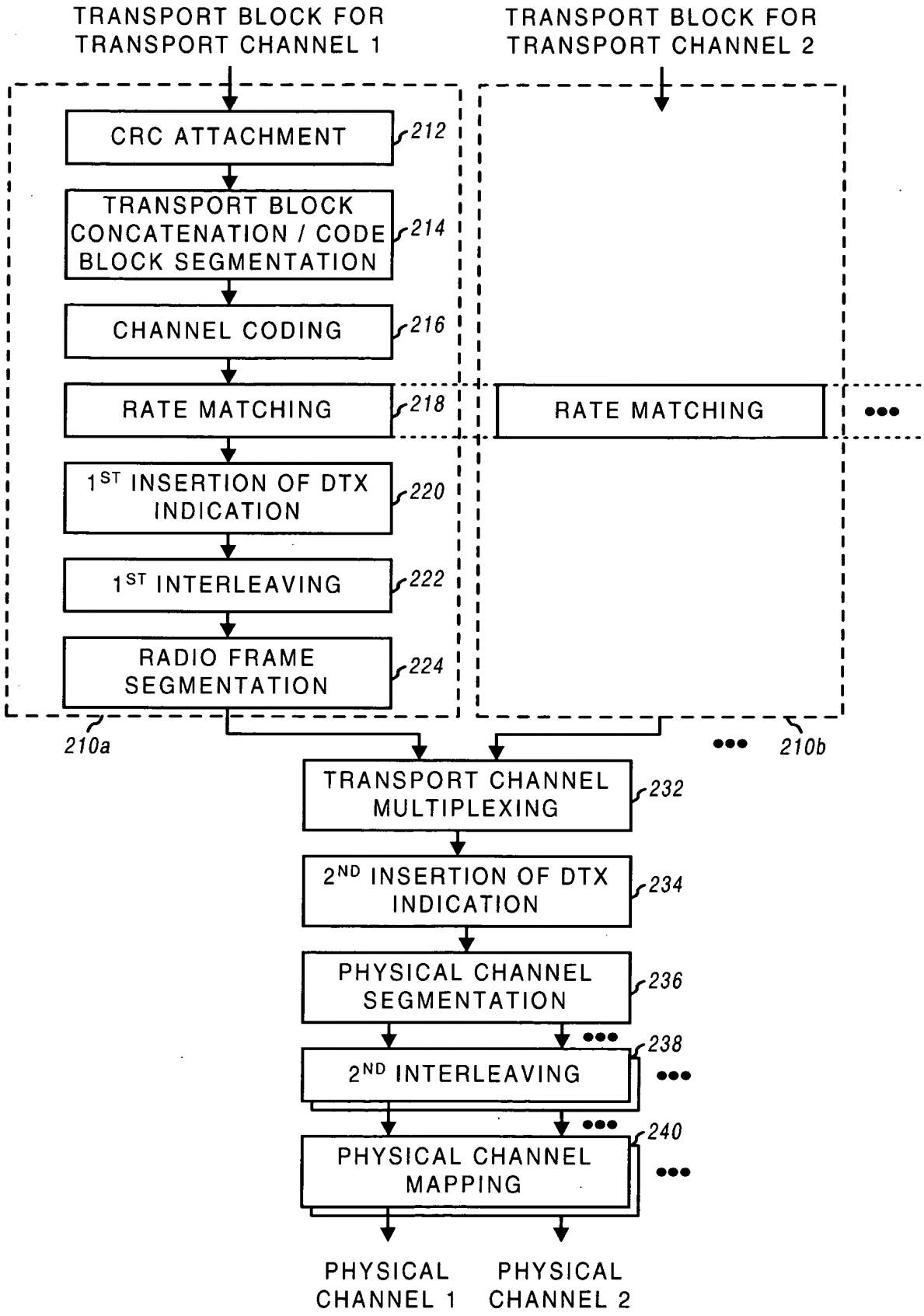

TRANSPORT BLOCK FOR TRANSPORT CHANNEL 1
TRANSPORT BLOCK FOR TRANSPORT CHANNEL 2
CRC ATTACHMENT
212
TRANSPORT BLOCK CONCATENATION / CODE BLOCK SEGMENTATION
214
CHANNEL CODING
216
RATE MATCHING
218
RATE MATCHING
1ST INSERTION OF DTX INDICATION
220
1ST INTERLEAVING
222
RADIO FRAME SEGMENTATION
224
210a
210b
TRANSPORT CHANNEL MULTIPLEXING
232
2ND INSERTION OF DTX INDICATION
234
PHYSICAL CHANNEL SEGMENTATION
236
2ND INTERLEAVING
238
PHYSICAL CHANNEL MAPPING
240
PHYSICAL CHANNEL 1
PHYSICAL CHANNEL 2

FIG. 2A

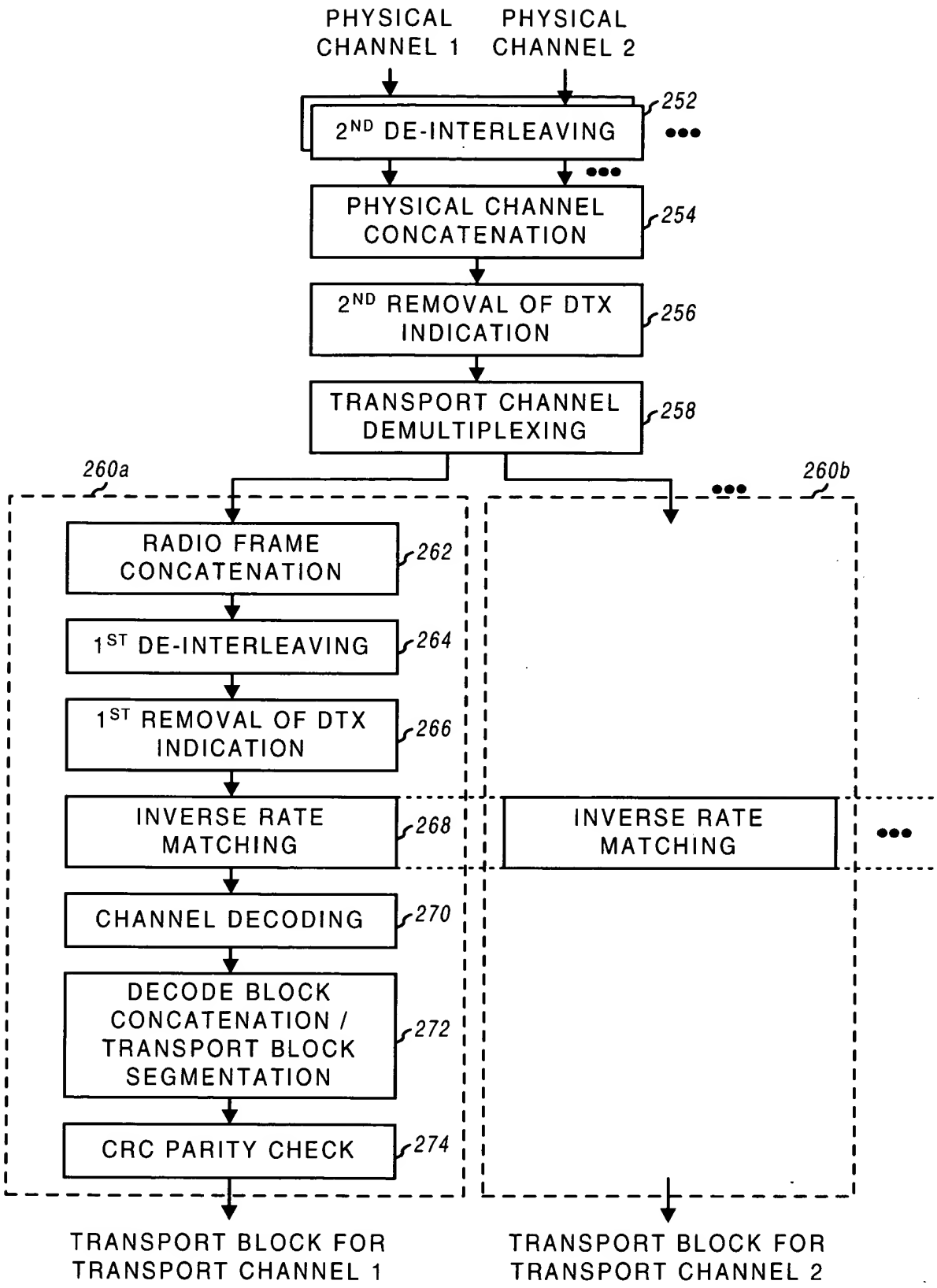

PHYSICAL CHANNEL 1
PHYSICAL CHANNEL 2
2ND DE-INTERLEAVING
252
PHYSICAL CHANNEL CONCATENATION
254
2ND REMOVAL OF DTX INDICATION
256
TRANSPORT CHANNEL DEMULTIPLEXING
258
260a
260b
RADIO FRAME CONCATENATION
262
1ST DE-INTERLEAVING
264
1ST REMOVAL OF DTX INDICATION
266
INVERSE RATE MATCHING
268
INVERSE RATE MATCHING
CHANNEL DECODING
270
DECODE BLOCK CONCATENATION / TRANSPORT BLOCK SEGMENTATION
272
CRC PARITY CHECK
274
TRANSPORT BLOCK FOR TRANSPORT CHANNEL 1
TRANSPORT BLOCK FOR TRANSPORT CHANNEL 2

FIG. 2B

0026007 "5h982960

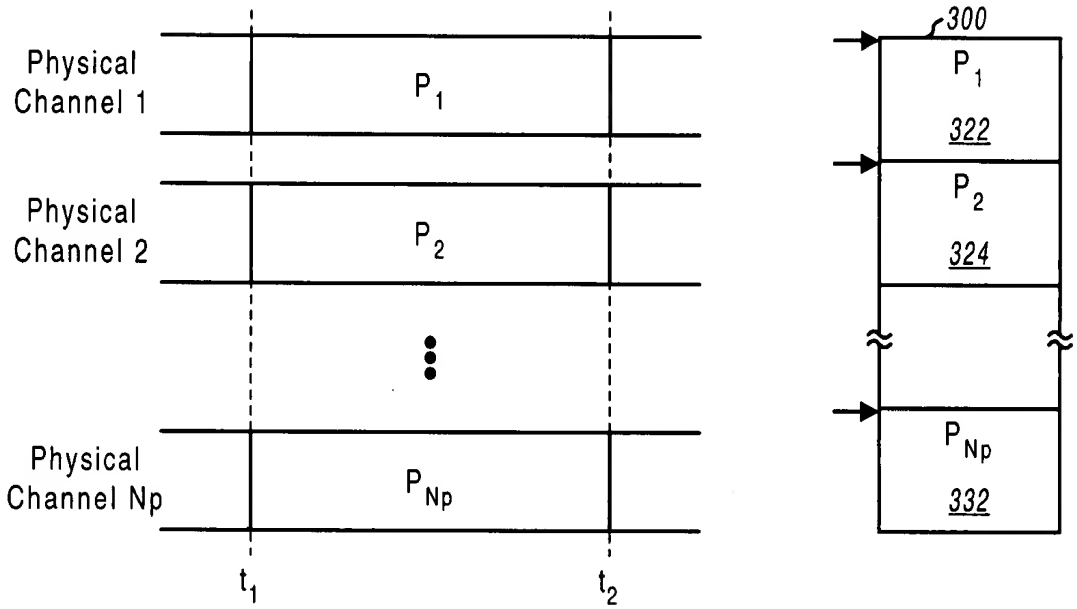


FIG. 3

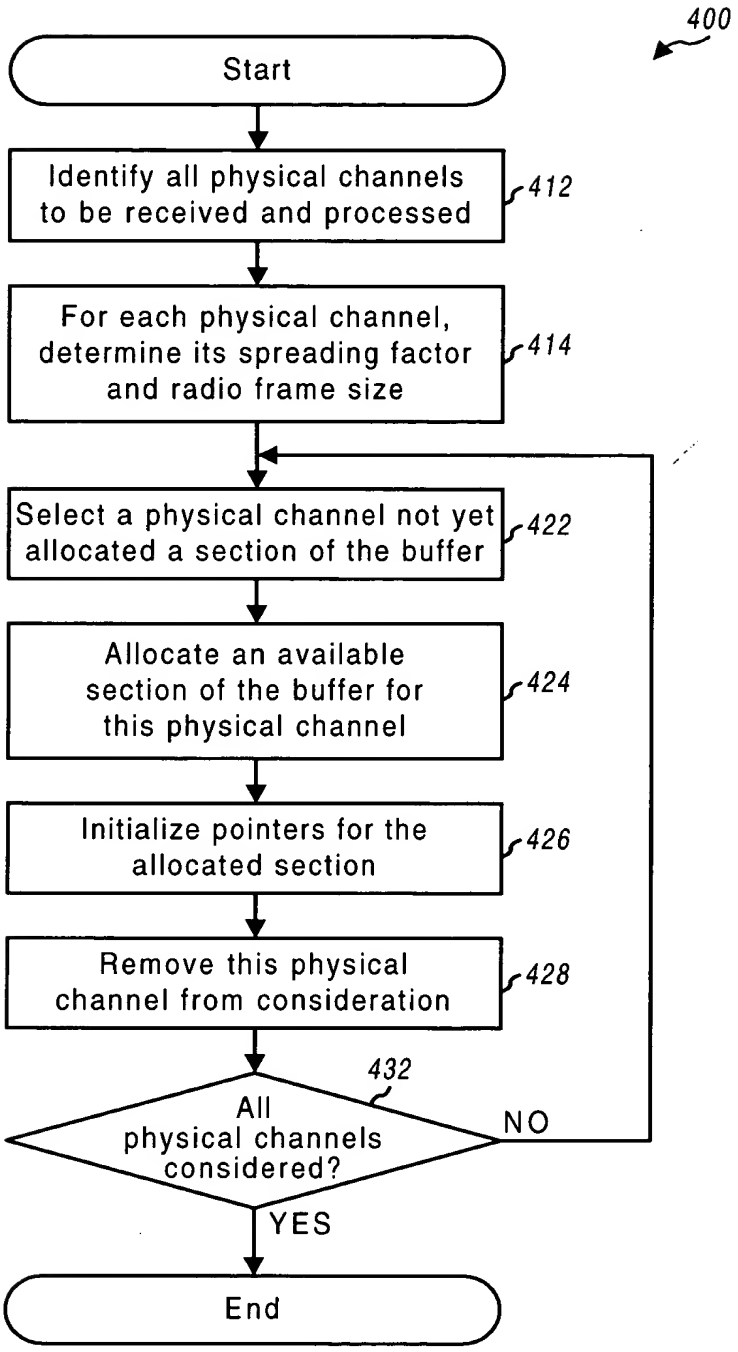

400
Start
Identify all physical channels to be received and processed
412
For each physical channel, determine its spreading factor and radio frame size
414
Select a physical channel not yet allocated a section of the buffer
422
Allocate an available section of the buffer for this physical channel
424
Initialize pointers for the allocated section
426
Remove this physical channel from consideration
428
432
All physical channels considered?
NO
YES
End

FIG. 4

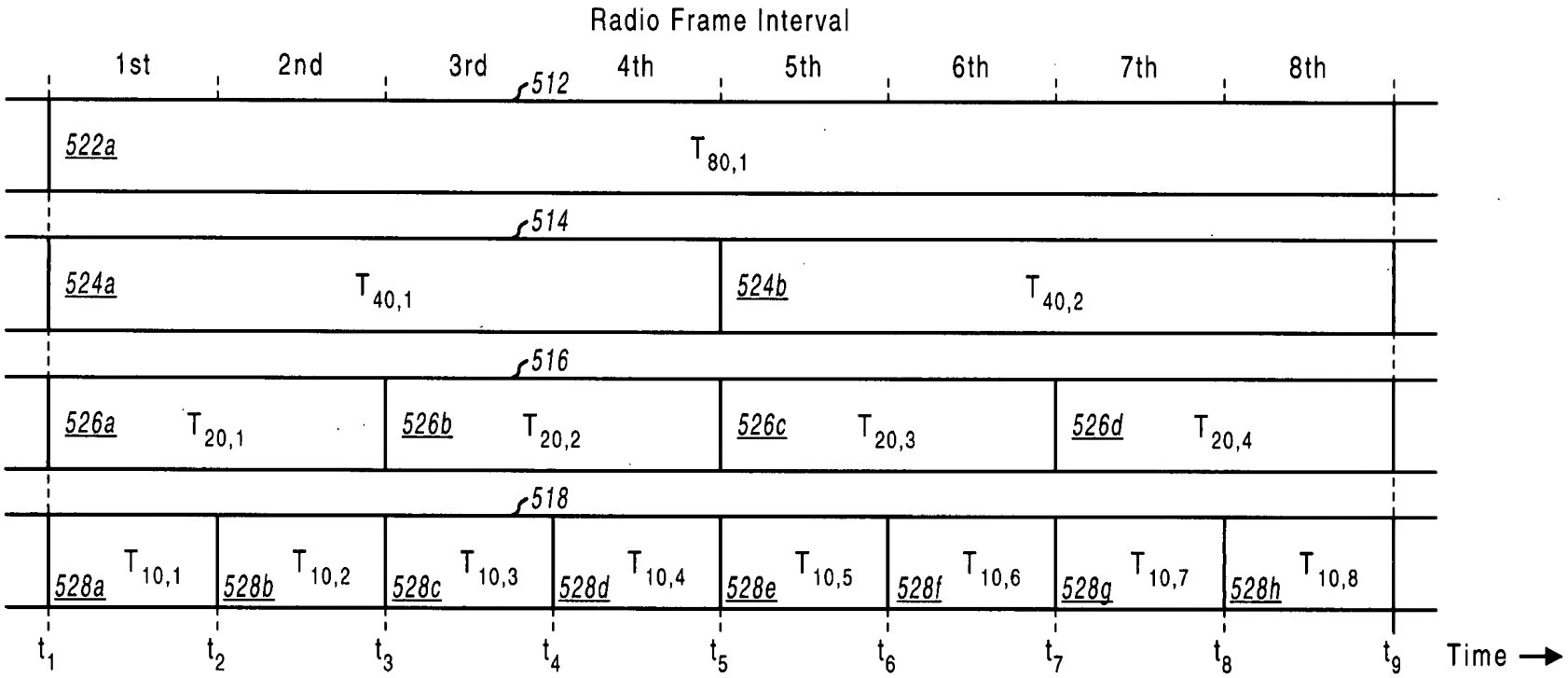

Radio Frame Interval
1st
2nd
3rd
4th
5th
6th
7th
8th
512
522a
$T_{80,1}$
514
524a
$T_{40,1}$
524b
$T_{40,2}$
516
526a
$T_{20,1}$
526b
$T_{20,2}$
526c
$T_{20,3}$
526d
$T_{20,4}$
518
528a
$T_{10,1}$
528b
$T_{10,2}$
528c
$T_{10,3}$
528d
$T_{10,4}$
528e
$T_{10,5}$
528f
$T_{10,6}$
528g
$T_{10,7}$
528h
$T_{10,8}$
t_1
t_2
t_3
t_4
t_5
t_6
t_7
t_8
t_9
Time

FIG. 5

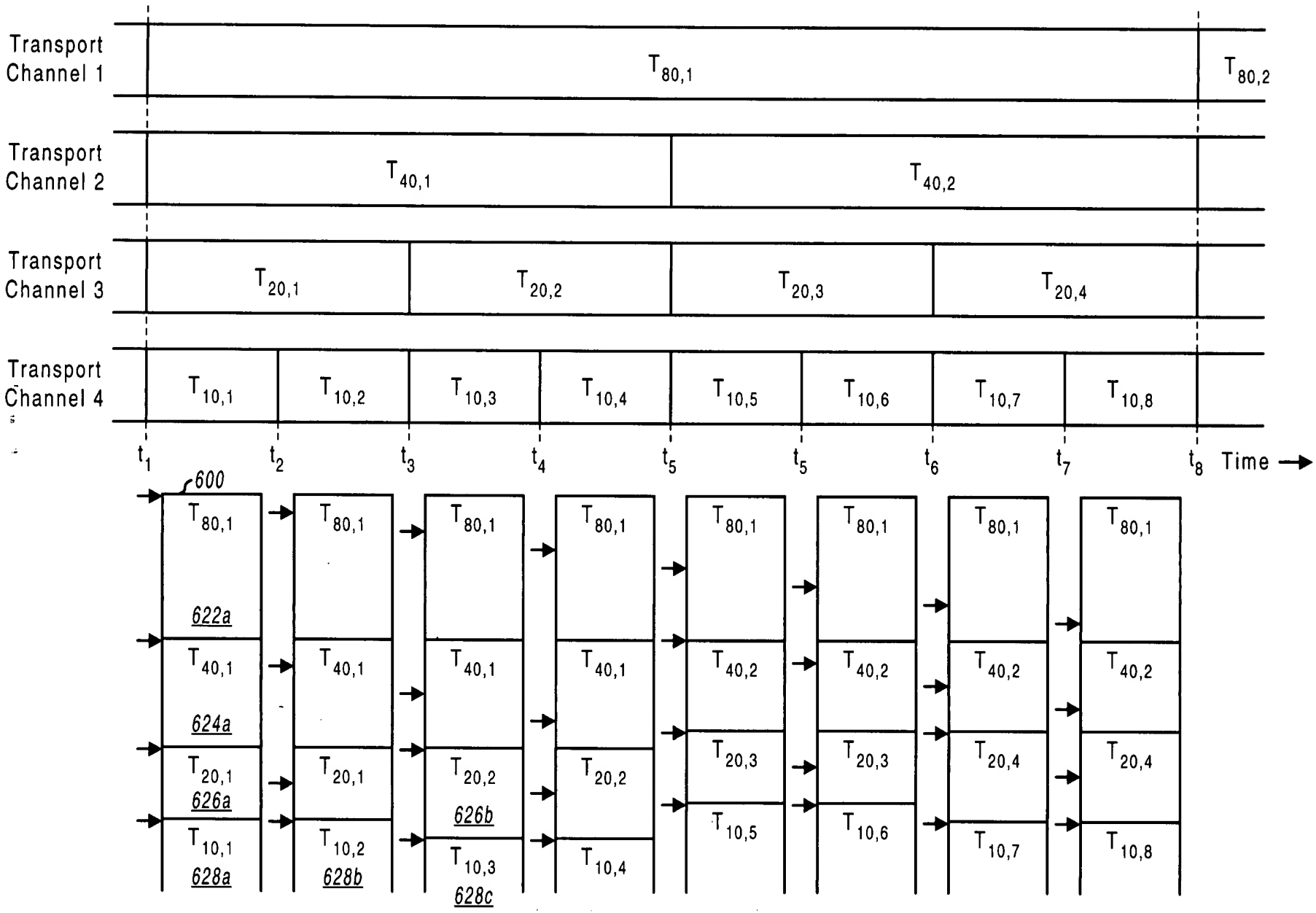

Transport Channel 1
Transport Channel 2
Transport Channel 3
Transport Channel 4
T80,1
T80,2
T40,1
T40,2
T20,1
T20,2
T20,3
T20,4
T10,1
T10,2
T10,3
T10,4
T10,5
T10,6
T10,7
T10,8
t1
t2
t3
t4
t5
t5
t6
t7
t8
Time
600
622a
624a
626a
626b
628a
628b
628c

FIG. 6

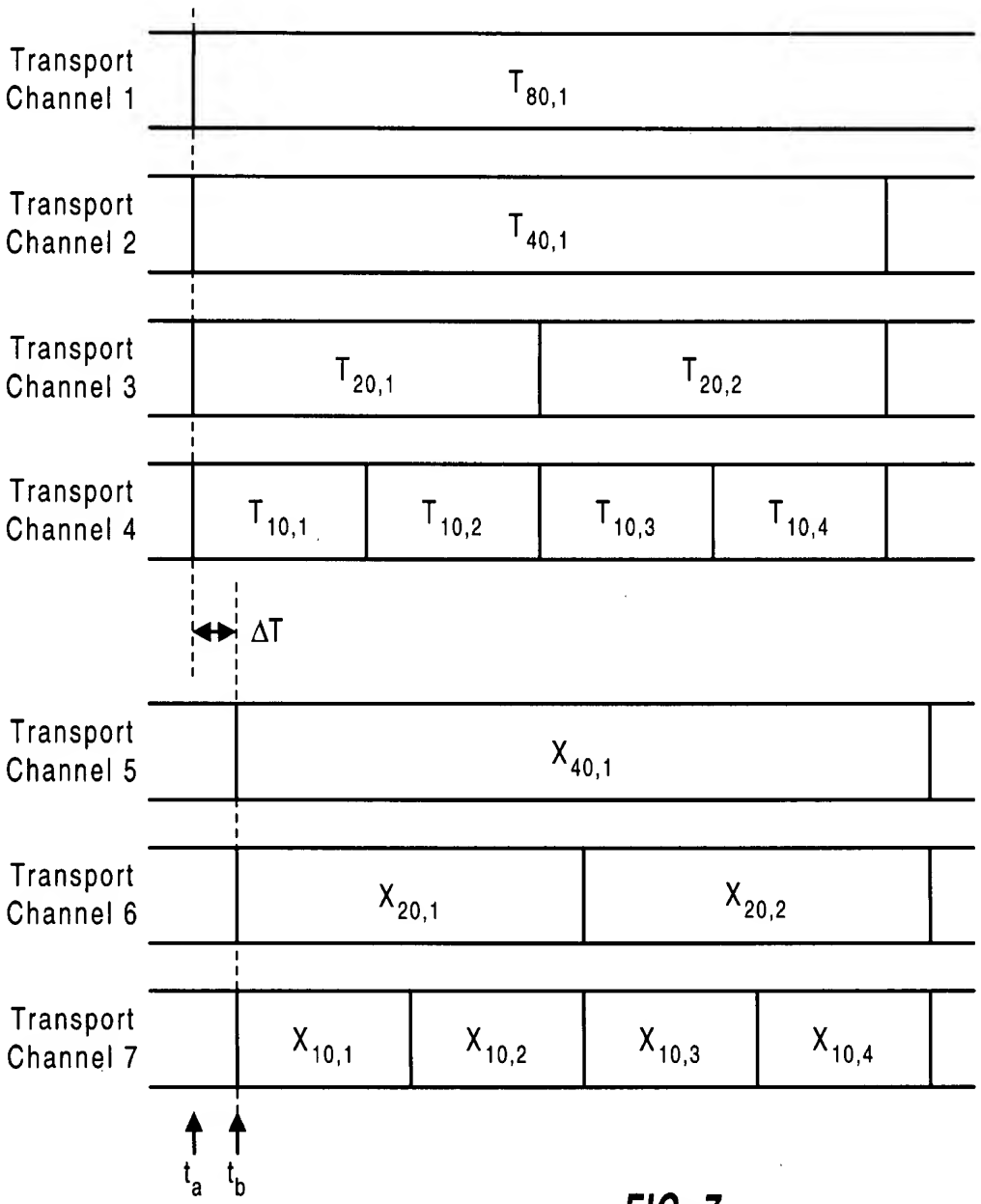
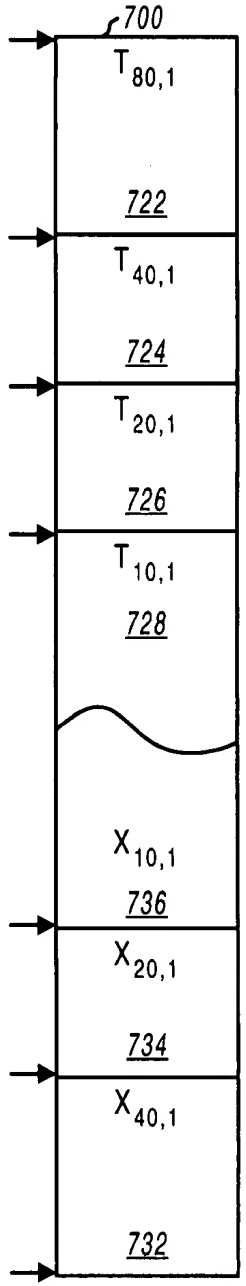

Transport Channel 1
$T_{80,1}$
Transport Channel 2
$T_{40,1}$
Transport Channel 3
$T_{20,1}$
$T_{20,2}$
Transport Channel 4
$T_{10,1}$
$T_{10,2}$
$T_{10,3}$
$T_{10,4}$
ΔT
Transport Channel 5
$X_{40,1}$
Transport Channel 6
$X_{20,1}$
$X_{20,2}$
Transport Channel 7
$X_{10,1}$
$X_{10,2}$
$X_{10,3}$
$X_{10,4}$
t_a
t_b

FIG. 7


700
$T_{80,1}$
722
$T_{40,1}$
724
$T_{20,1}$
726
$T_{10,1}$
728
$X_{10,1}$
736
$X_{20,1}$
734
$X_{40,1}$
732

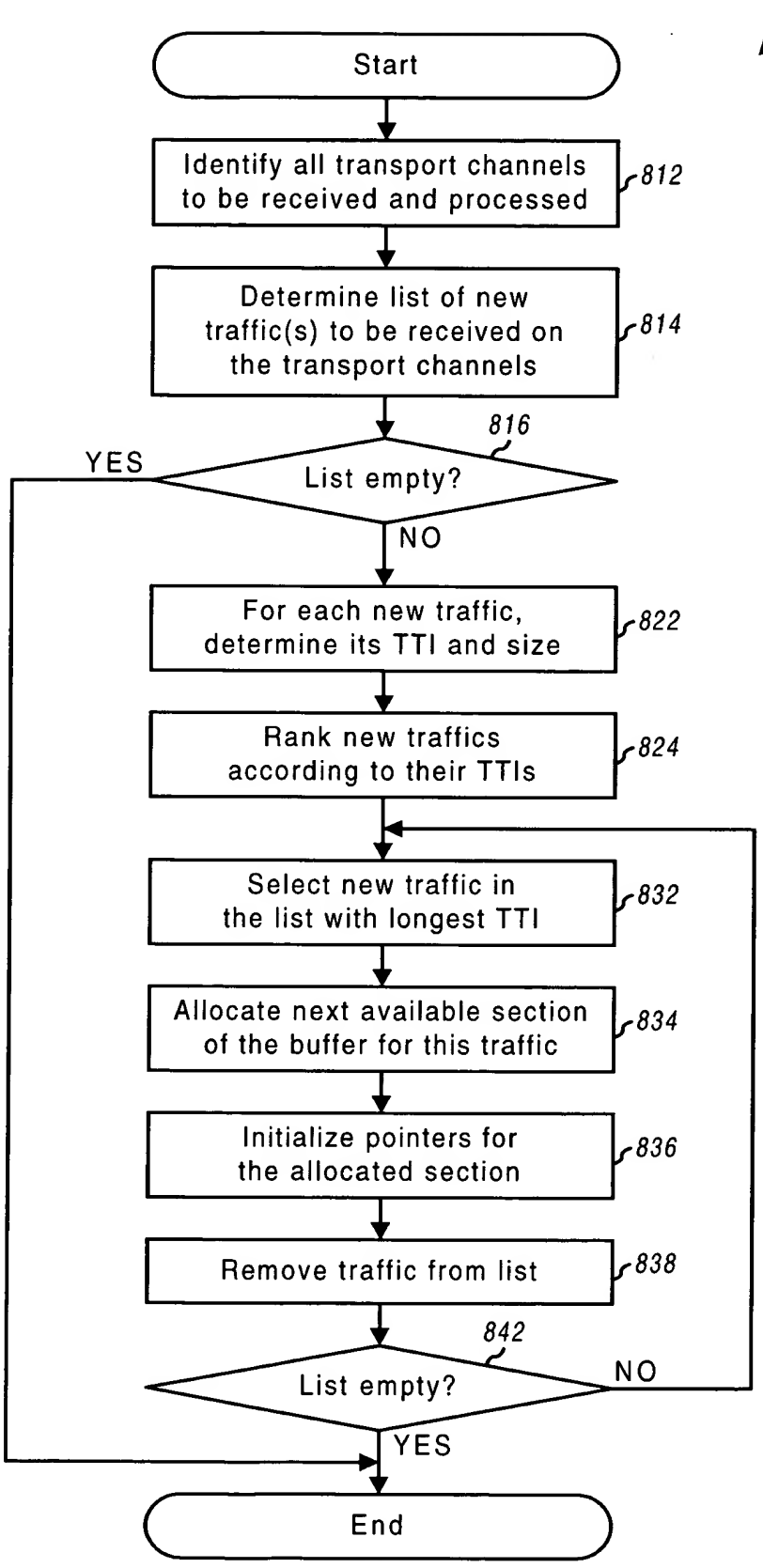

800
Start
Identify all transport channels to be received and processed
812
Determine list of new traffic(s) to be received on the transport channels
814
816
List empty?
YES
NO
For each new traffic, determine its TTI and size
822
Rank new traffics according to their TTIs
824
Select new traffic in the list with longest TTI
832
Allocate next available section of the buffer for this traffic
834
Initialize pointers for the allocated section
836
Remove traffic from list
838
842
List empty?
NO
YES
End

FIG. 8

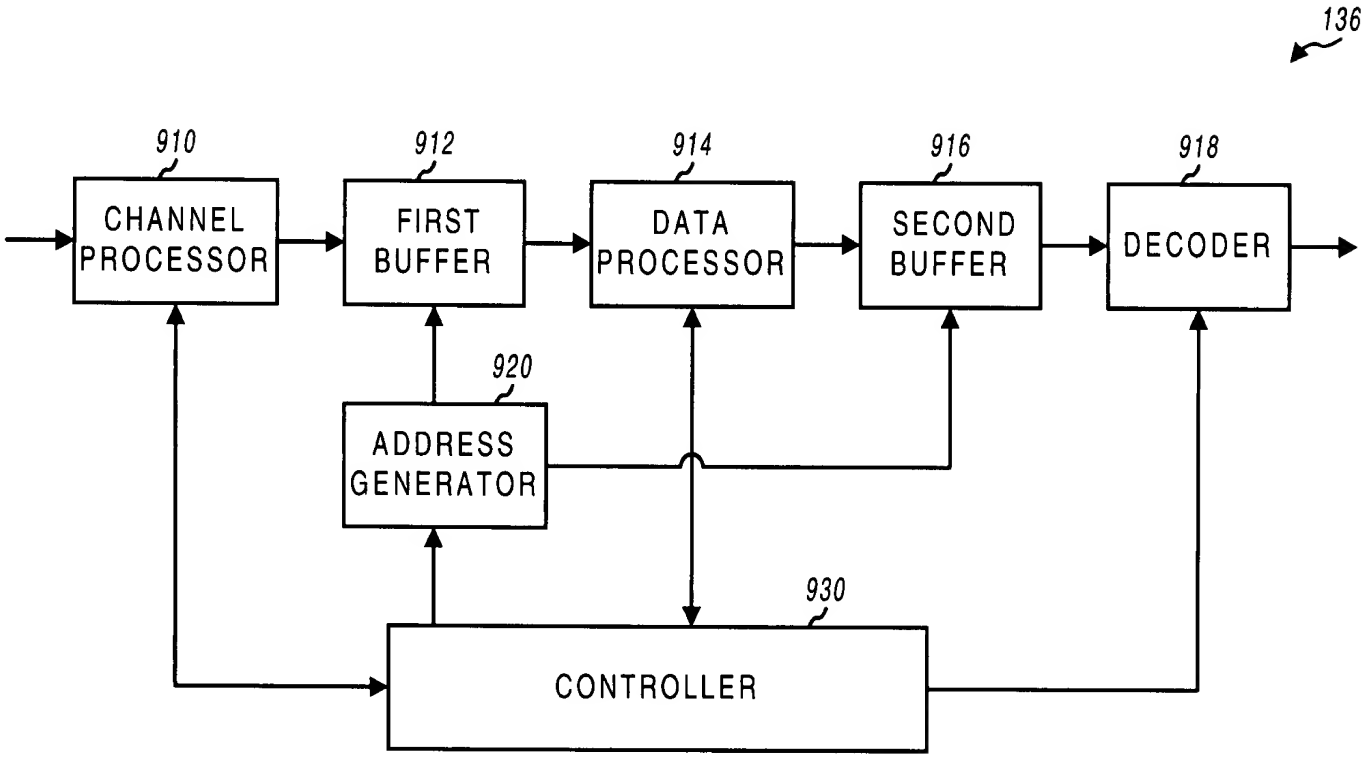

136
910
CHANNEL PROCESSOR
912
FIRST BUFFER
914
DATA PROCESSOR
916
SECOND BUFFER
918
DECODER
920
ADDRESS GENERATOR
930
CONTROLLER

FIG. 9